Fieldwork examples

This resource is part of the Fieldwork toolkit that supports our GCSE Geography specification (8035) and sits alongside other resources in the Fieldwork ideas section.

It is important to remember that content from one part of the specification may be applicable to another part and can be examined through fieldwork in a location other than that specified. For example, there are tourism-related fieldwork opportunities evident in 3.1.3.4, Glacial landscapes in the UK, but these concepts can also be examined in coastal or other locations.

There are also opportunities to use content from parts of the specification at a different scale from that specified. For example, there are numerous urban field opportunities in 3.2.1, Urban issues and challenges, that can be investigated in urban areas that are not major cities within the UK.

Schools can base the fieldwork on the geographical concepts rather than the specified locations. Please refer to page 24 of the specification for the full fieldwork requirements.

Some fieldwork opportunities arising from the new specification

Unit Ref.	Unit Title	Background	Hypothesis/Question Concepts/Processes	Data Collection	Data Presentation
3.1.1.3	Weather hazards – an extreme weather event experienced in the UK.	An opportunistic fieldwork enquiry, as it can only take place when an extreme weather event occurs, eg great storm, drought, snowfall etc.	Weather hazard X has had an impact on (area name). What impact did weather hazard X have on (area name)?	• Photographs of impacts. • Questionnaires to local people to determine range and scale of impacts. • Interview responses. • Secondary data to	Map of area with located photographs annotated to show impacts. Notes added to provide details.

			• Economic impacts • Environmental impacts • Social impacts • Management strategies Students would not investigate all of the above; one or two concepts may be the actual focus of the enquiry.	confirm details of weather event.	
3.1.1.4	Climate change – alternative energy production.	Could be carried out at local street level looking at the number of solar panels on houses within a locality.	The local community in area X is helping to reduce the cause of climate change. How is the local community in area X helping to reduce the cause of climate change? • Sustainable energy • Renewable energy	• Using local street maps, record the number of solar panels evident on individual buildings. • Interview people who have solar panels to see how much energy they generate.	Locate results on a base map at street level; use proportional symbols to represent numbers of solar panels. Additional symbol(s) for energy data. GIS opportunity.
3.1.1.4	Climate change – changing agricultural systems.	Could be carried out in a rural area or even on a city farm or market garden.	Agriculture is changing to reduce the causes of climate change. How is agriculture changing to reduce the causes of climate change? • Inputs (focus on changes)	• Interview with farmer to determine changes made recently, specifically aimed at reducing causes of climate change. • Secondary data provided by farmer and/or internet search.	Map of farm annotated to show changes made. GIS opportunity. Graphs of changes to inputs, outputs, processes.

			• Outputs (focus on changes) • Processes (focus on changes)		
3.1.1.4	Climate change – reducing risk from rising sea levels.	Could be undertaken in a location where action has already been taken to reduce risk. It could also take place in an area at risk where plans are in place to reduce the risk of rising sea levels.	Area X has responded to the risk of rising sea levels. How has area X responded to the risk of rising sea levels? • Rising sea level • Hard engineering • Management	• Site visit, mapping and photographing strategies put in place (possibly evaluating these strategies). • Secondary data re: flood risk, previous floods. • Interviews with planners/residents.	Mapping of strategies, with photographs and notes. Evaluation data added. GIS opportunity.
3.1.2.1	Ecosystems – small scale ecosystem.	Could be a deciduous woodland, pond, heathland, hedge row.	The ecosystem at X is healthy and balanced. How healthy is the ecosystem at X? • Ecosystem • Producers • Consumers • Decomposers	• Quadrat sampling on land to determine features of ecosystem. • Sampling by dipping in ponds. • Recording species and numbers at site(s) used.	Graphs of species numbers looking at ratios of producers to consumers to decomposers.
3.1.3.2	Coastal landscapes – wave types and characteristics.	Could be extended to look at coastal processes and landforms. Possible links to geology can be developed.	The dominant waves at X are constructive (destructive). What types of waves occur at X?	• Wave counts at a range of locations. • Measurements of wind speed and direction.	Proportional arrows representing average wave frequency located onto a base map of the study area. Direction of arrow in line

			• Constructive waves • Destructive waves • Any other coastal processes relevant to the location, eg longshore drift, erosion, deposition		with prevailing wind. Wind strength can be shown with additional symbol or raw data added.
3.1.3.2	Coastal landscapes – mass movement and its impacts.	Could be carried out along any section of coastline where mass movement is occurring and fieldwork can be undertaken safely. Possible links to geology can be developed.	Mass movement has had significant impacts on the coast at X. What impact has mass movement had on the coast at X? • Mass movement • Slumping • Land use	• Photographs/sketches of mass movement. • Measurement of cliff profiles – heights and angles. • Land use survey of area affected by mass movement.	Annotated photographs or sketches of mass movement events. These can be located on a base map and/or geological map of location with land use identified to illustrate impact of cliff retreat.
3.1.3.2	Coastal landscapes – erosion and its impacts.	Could be carried out along any stretch of coastline where erosion is taking place and data collection can be carried out safely. Possible links to geology can be developed.	Erosion is changing the coastline at X. How is erosion changing the coastline at X? • Abrasion • Attrition • Erosion Hydraulic action has not been identified as a key term as it is so difficult to measure in the field.	• Photograph or sketch evidence of erosion, eg undercutting of cliffs, landforms such as stacks and arches. • Measure extent of wave-cut platforms. • Measure changes in size of beach material.	Annotated diagrams or photographs of erosional landforms, possibly with measurements added. Proportional symbols on maps to show changes in size of beach material.

3.1.3.2	Coastal landscapes – longshore drift.	Could be carried out along any beach where data collection can be carried out safely. Could be developed to include the study of landforms created by deposition.	Longshore drift moves beach material North-South or West-East along the beach at X. In what direction does longshore drift move beach material at X? • Longshore drift • Constructive waves • Destructive waves • Fetch	• Use orange or tennis ball to measure distance of longshore drift in 2 minutes (or as long as you wish) along a stretch of beach. Repeat as often as required. • Measure drop in height to beach level either side of groynes if these are present. • Count wave frequency at locations along the beach. • Determine wind and wave direction.	Use proportional arrows on base map of beach to show direction of longshore drift and distance covered by orange or tennis ball at each location used. Draw bars to show change in height either side of groynes and colour code based on side of groynes where data were collected. Add proportional arrows to the sea at each location to show wave frequency and direction. Add wind speed and direction using wind rose. GIS opportunities.
3.1.3.2	Coastal landscapes – hard engineering and/or soft engineering and/or managed retreat.	It is possible to look at just one of these strategies, or cover more if the opportunity arises.	The coastal management strategy (strategies) at X is (are) effective. Is (Are) the coastal management strategy (strategies) at X effective? • Hard engineering • Soft engineering • Managed retreat.	• Take photographs and map strategies. • Use EQS type of scoring system to assess effectiveness. • Measure cliff profiles to assess stability. • Look at vegetation coverage on cliff profiles to assess stability. • Measure sediment	Located photographs and graphs on base maps. Well annotated photographs of cliff profiles. Scale drawings of cliff profiles. Graphs of sediment accumulation at groynes.

			Possibly linked to: • Erosion • Mass movement • Longshore drift.	accumulation at groynes to assess success in reducing longshore drift. • Secondary data indicating rate of coastal change and need for management.	GIS opportunities.
3.1.3.3	River landscapes – long profile.	Changes along the long profile of a river need not involve using locations from source to mouth. Any sections of a river that are safe, accessible and show change over distance can be used.	Changes in river features and/or characteristics and/or processes can be found over distance on the River X. What changes in river features and/or characteristics and/or processes can be found over distance on the River X? • Long profile • Gradient • Velocity • Bedload • Cross profile • Erosion • Deposition There is no need to address all of these concepts/processes, just two	• Determine gradient from OS map evidence or in the field using clinometers. • Velocity using floating object or hydroprop. • Bedload size and/or shape, possibly using Powers Index. • Width and depth for cross profile. • Evidence of erosion – bank undercutting, collapse, river cliffs, changes in bedload size and/or shape. • Deposits of sediment mapped.	Long profile drawn to scale for section(s) of river studied. Located graphs added to long profile to identify features/ characteristics. Cross profiles drawn to scale. Proportional symbols for bedload and velocity. Dispersion graphs for bedload. Scatter of bedload against velocity.

			would suffice. Possibly link to establish theories of rivers.		
3.1.3.3	River landscapes – cross profile.	Changes along the cross profile of a river need not involve using locations from source to mouth. Any sections of a river that are safe, accessible and show change can be used.	Changes in the cross profile of the River X occur along its course. What changes in the cross profile of the River X occur along its course? • Cross profile • Gradient • Velocity • Bedload • Long profile • Erosion • Deposition There is no need to address all of these concepts/processes, just two would suffice. Possibly link to establish theories of rivers.	• Width and depth for cross profile. • Velocity using floating object or hydroprop. • Bedload size and/or shape, possibly using Powers Index. • Evidence of erosion – bank undercutting, collapse, river cliffs, changes in bedload size and/or shape. • Deposits of sediment mapped.	Cross profiles drawn to scale. Proportional symbols for bedload and velocity. Dispersion graphs for bedload. Scatter of bedload against velocity.
3.1.3.3	River landscapes – flood management	In cities such as York, frequent flood events have resulted in flood management schemes being introduced. There is	The flood management scheme in X has been effective. How effective has the flood	• Secondary data re: previous flood events covering frequency, extent and impacts. • Mapping of features of	Mapping of extent of flood events. Graphs of frequency of flood events.

	scheme.	an opportunity here for physical and human geography data to be collected.	management scheme at X been? • Flood events • Impacts (social, economic, environmental) • Management	flood management scheme. • Photographs and assessment of features mapped. • Questionnaires to local people assessing effectiveness. • Secondary data of frequency, extent and impacts of flood events since management scheme introduced.	Graphs/maps of impacts. Mapping and photographs with assessments of features of flood management scheme. Questionnaire responses presented graphically.
3.1.3.4	Glacial landscapes – land use, conflicts, development, conservation.	Starting an enquiry in a glacial area with land use is quite straightforward and then it is relatively easy to develop the enquiry to examine other aspects of the specification such as those noted.	The glacial landscape at X provides a range of land use opportunities. What are the land uses within the glacial landscape at X? Can develop this to look at how land use links to conflicts, how development of land uses create conflicts and how conservation can be achieved even with current and planned land uses.	• Map land uses within study area. • EQS style of data collection re: positive/ negative impacts and photographs for supporting evidence. • Questionnaires to local people re: issues and conflicts. • Photographic evidence of conflicts. • Mapping of developments and conservation strategies. • Secondary data relating to developments and	Maps of land use possibly enhanced with photographs and EQS results. Graphs of questionnaire responses. Conflict matrix. Written or photographic evidence of development and/or conservation strategies.

			• Land use • Conflicts • Development • Conservation	conservation.	
3.1.3.4	Glacial landscapes – tourism, attractions, impacts, management strategies.	It is important to note that the tourism content specified can also be applied to coastal areas, cities, honeypot sites etc, and does not have to be studied within the context of a glacial landscape.	The glacial landscape at X provides a range of attractions for tourists. Why do tourists visit the glacial landscape at X? This can be extended or adapted to examine impacts of tourism (social, economic, environmental) and/or management strategies. • Tourism • Attractions (physical and/or human) • Impacts (social, economic, environmental) • Management strategies	• Questionnaires to visitors to determine reasons for visiting area (attractions). • Mapping of attractions. • EQS style assessment of attractions. • Questionnaires to locals to determine impacts of tourism. • Traffic flow data. • Land use survey. • House price survey. • Secondary data. • Mapping/photographs of management strategies.	Mapping of attractions possibly enhanced with photographs and/or EQS data. Graphs for questionnaire responses. Proportional flow lines for traffic data. Land use map. Graphs for house prices. Maps with photographs and notes indicating management strategies.
3.2.1	Urban issues and challenges – migration.	Could look at reasons for migration and impacts of this process.	Migration has had a range of impacts on X. What impact has migration had on X? • Migration	• Secondary data to establish rates of migration. • Questionnaires to determine reasons why people have moved into the locality and to find	Graphs showing rates of migration. Choropleth maps to show source of migrants. Graphs showing reasons for

			• Economic impacts • Social impacts • Environmental impacts	out where they have come from. • Land use surveys to determine impacts of migration, eg restaurants, specialist food/clothing outlets, places of worship etc. • Photographs of environmental impacts. • Questionnaires looking at social impacts.	migration. Land use maps of functions linked to migration. Annotated photographs.
3.2.1	Urban issues and challenges – recreation and entertainment.	Could look at how provision for recreation and entertainment has been increased using an urban area that has undergone change.	Change to the urban area of X has increased opportunities for recreation and entertainment. How has change to the urban area of X increased opportunities for recreation and entertainment? • Recreation • Entertainment	• Secondary data to research planning ideas underpinning urban change. • Land use mapping of recreation and entertainment options, noting recent changes. • Photographs of recreation and entertainment provision. • Questionnaires to determine opinions about recreation and entertainment provision.	Land use maps showing recreation and entertainment provision, colour-coded to indicate when established. Annotated photographs to show main features of recent provision. Graphs to show views about the recreation and entertainment provision.
3.2.1	Urban issues and challenges	Contrasting housing areas within an urban locality can be compared. A minimum of	Inequalities in housing exist in X	• Secondary data re: ratio of owner-occupied to rental properties in	Graphs of ratio of owner-occupied to rental properties.

	– housing inequalities.	two such areas should be used but students could investigate several areas if time allows.	How is housing inequality evident within X? • Housing inequality • Owner-occupied • Rental properties • Property values • Environmental quality	locality. • Secondary data re: housing quality information, eg number of toilets etc. • EQS style assessment of housing quality. • Photographs to support EQS data. • Property price surveys, online or through press or estate agents. • EQS of locality.	Graphs to show differences in housing quality information. Mapping of relative housing qualities to determine zones with marked differences. Well annotated photographs to show inequalities. House price graphs.
3.2.1	Urban issues and challenges – urban regeneration.	Could be undertaken in any urban area where some form of regeneration has taken place.	The regeneration of X has had a positive impact on the locality. What impact has the regeneration of X had on the locality? • Regeneration • Environmental impacts • Economic impacts • Social impacts	• Secondary data to examine reasons for regeneration and to establish before and after information about the locality. • EQS of regeneration area and neighbourhood adjacent to it with photographs for supporting evidence. • Land use mapping to determine new businesses brought into regenerated area. • Questionnaires to determine social impacts	Before and after photographs and maps of locality. EQS mapped to show changes from regenerated area to neighbouring area. Land use maps of businesses. Graphs of questionnaire responses re: social impacts.

				of regeneration.	
3.2.1	Urban issues and challenges – transport strategies.	All urban areas have policies and strategies for managing transport within their locality and these can be studied at a range of scales, from examining the effectiveness of a Park and Ride scheme to looking at an integrated transport scheme in a city.	The transport strategy in X is effective. How effective is the transport strategy at X? Key concepts will depend upon which aspect(s) of the transport strategy will be investigated. • Transport strategy • Integrated transport scheme • Park and Ride • Traffic calming • Traffic management	• Secondary data to establish strategy being promoted by urban area involved. • Mapping of features of strategy, eg bus lanes, cycle lanes, exclusion zones, linked features in integrated scheme. • Traffic flow counts. • Surveys at Park and Ride site to determine usage. • Questionnaires regarding effectiveness of transport strategy.	Maps of key features of strategy. Linked features shown on map. Proportional flow lines of traffic movements. Graphs for questionnaire responses re: effectiveness of strategy.
3.2.2	The changing economic world – development of science and business parks.	There are over 100 science and business parks in the UK so access to one such site should be possible for most schools without having to travel too far.	The science/business park at X has had a positive impact on the locality. What impact has the science/business park had on the locality at X? • Science park • Business park • Multiplier effect • Economic impacts	• Secondary data to determine background to development of science/ business park. • Land use survey. • Interviews with business to find reasons for locating there, employee numbers, links to other businesses. • Secondary data for economic impact of park.	Map of site classifying businesses by function. Graphs of data from interviews, eg numbers of employees. Economic value of park over time. Located graphs for EQS results.

			• Environmental impacts	• EQS style assessment of environmental impacts.	
3.2.2	The changing economic world – population change in a rural area.	Some rural settlements are expanding whilst others are declining. Rates of change and reasons for these changes can form the basis of an enquiry.	The population of X has declined/increased because of economic factors. Why has the population of X declined/ increased? • Population change • Migration • Economic factors • Function • Services	• Secondary data to determine population change over time. • Questionnaires to residents to establish reasons for movement into/out of the settlement. • Housing surveys to record age and price. • Research transport links. • Mapping of functions and services found in the settlement.	Graph of population change, possibly annotated with explanations for periods of increase/decrease. Graphs for reasons residents moved into/out of the settlement. Map of housing areas with age and price added. Map of functions and services within settlement and distances to nearest options of those lacking, eg doctor, primary school, petrol station.
3.2.3.1	Resource management – carbon footprints, food miles.	Could be carried out individually and, if appropriate, data collated and shared to widen sample size.	People in X create a large carbon footprint. People in X could reduce the food miles of their weekly shop. What is the carbon footprint of people living in X?	• Use online calculator to determine carbon footprint of each students' family and compare results. • Collect data about their family's energy use, transport, food, clothing, tv and phone use etc. • Identify 10 (or more)	Graphs of carbon footprints for: • Individual families based on separate contributing factors, eg energy • Class data sets based on family size. Choropleth or proportional flow lines maps to show

			How could people in X reduce the food miles of their weekly shop?	examples of foods originating from outside of the UK and the same number produced within the UK at each student's home. • Use online calculator to determine food miles for wide range of food products. • Surveys in supermarkets to examine range of foods available and calculate food miles for sample of foods from outside of the UK and for similar foods produced within the UK.	food miles involved for range of regular purchases for individual families based on whole class data.